

Desert Species of the Lincoln National Forest

There lower elevation landscapes of the Lincoln National Forest provide habitat for numerous desert animals. These species possess unique characteristics and adaptations that help them thrive in the hot and dry climate they call home. Below are a few notable desert dwellers found on the Lincoln National Forest.

Texas horned lizard (*Phrynosoma cornutum*): Often called the Horny Toad or horned frog due to their round and flat body profile, these lizards are a fascinating desert critter.



Photo Source: Lincoln National Forest Flickr

Size: Average adult Horned lizards are 2.7 inches in length, but females can grow to be almost 5 inches and males can grow to be around 4 inches.

Appearance: These small stout lizards are tan, with darker brown streaks to blend in with the desert ground. The large horns on their heads are extensions of their skull and are made of bone. The other spikes on its back and tail are modified scaled. These features help protect the lizards from predators.

Diet: Most of the Horned lizard's diet is made up of harvester ants but they will also eat beetles, grasshoppers, and other insects.

Role in Ecosystem: Horned Lizards are both predators and prey in the desert ecosystem. They prey upon insects and are preyed upon by hawks, eagles, roadrunner, snakes and even coyotes.

Desert Adaptation: Like all reptiles, Horned Lizards are cold blooded and will bask in the desert sun to increase their body heat.

Southwestern Red-tailed Hawk (*Buteo jamaicensis fuertesi*): The numerous subspecies of red-tailed hawk are found across North America however this subspecies dwell in the deserts of the Southwest.



Photo Source: https://www.allaboutbirds.org/guide/Red-tailed_Hawk/id

Size: 2-4 pounds 4-5-foot wingspan (females are significantly larger than males)

Appearance: Typical coloration is brown wings and back with light or speckled chest and legs and a dark reddish tail for which it received its name. Red-tailed hawks' plumage can vary greatly in color.

Diet: Carnivorous, primarily eating rodents like mice, rats, rabbits but also consuming lizards, insects, fish, and frogs.

Role in Ecosystem: Red-Tailed Hawks play a predator role in the ecosystem

Western Diamondback Rattlesnake (*Crotalus atrox*): This venomous snake is an infamous icon of the desert Southwest.



Photo Source: Lincoln National Forest Flickr

Size: Adult Diamondbacks commonly grow to around 4 feet long, but they can grow larger under certain conditions.

Appearance: The Diamondback's scale pattern consists of rectangular or hexagonal shapes along the top of the snake from the head to tail contributing to its name. On the tail there are black and white alternating bands leading to the rattle that tips the tail. Colors can vary but are generally a similar color to their surroundings to camouflage themselves.

Diet: Western Diamondback Rattlesnakes feed almost entirely on small mammals. Species include, Kangaroo rats, pocket gophers, Mice, prairie dogs, rabbits.

Role in Ecosystem: Rattlesnakes prevent overpopulation and disease in their prey by controlling their numbers.

Desert Adaptation: Reptiles are cold-blooded and use the hot desert to their advantage. They often bask in the sun to maintain an ideal body temperature.

Desert Tarantula (*Aphonopelma chalcodes*): Tarantulas are certainly iconic members of the desert community and are well equipped to live in harsh conditions.



Photo Source: Lincoln National Forest Flickr

Size: 3-5 inches. Females are slightly larger than males.

Appearance: Most commonly Desert tarantulas are dark brown to black except for the carapace, or front section of the body, which is lighter and refer to them as blonde tarantulas. However different colorations are possible.

Diet: Desert tarantulas don't catch their prey in webs like most spiders, instead they hunt their prey on foot and subdue them with a venomous bite. They prey on a primarily on insects such as crickets, grasshoppers, beetles, cicadas.

Tarantulas are also known to catch and eat larger prey like mice, lizards, and even bats!

Role in Ecosystem: Tarantulas play a predatory and prey roll in the ecosystem. Their main predator is an insect called the Tarantula Hawk

Desert Adaptation: Desert Tarantulas dig burrows that they fortify with silk to keep moisture in and the heat out. These burrows protect them from the elements as well as from predators

Coyote (*Canis latrans*): Today, coyotes are found nearly everywhere in North America. However, in the 1700's coyotes existed just in the deserts and prairies of central North America. Their expansion is attributed to their ability to thrive in human-altered environments.



Photo Source: <https://desertridgelifestyles.com/coexisting-with-coyotes/>

Size: Males are slightly larger than females and size of individuals varies greatly. Males weigh anywhere from 18-44 pounds. Females weigh 15-40 pounds.

Appearance: Fur color also varies greatly given the expansive geographic range of coyotes. Common colors are Reddish-brown, white, tan, black, and grey.

Diet: Coyotes are primarily carnivorous (meat eating) and eat a variety of food. When hunting in packs they will hunt deer, elk, pronghorn. They commonly hunt rabbits, hares, ground birds, squirrels, chipmunks, pocket gophers and kangaroo rats, lizards, insects, and even rattlesnakes. Common non-animal foods eaten by coyotes are wild fruits, grass and domestic crops like grain and soybeans.

Role in Ecosystem: Coyotes play a predator role in the ecosystems where they are present. They control numbers of their prey and thus prevent disease and overpopulation.

Desert Adaptation: Coyotes are well adapted to live in deserts. By eating a variety of foods, they can survive where certain species of prey may not exist. Coyotes living in deserts are typically lighter in color helping to absorb less heat from the sun. Like domestic dogs and all Canids, coyotes pant instead of sweating to dissipate heat and cool themselves down.

Mule deer (*Odocoileus hemionus*): Mule deer are native to the western half of North America. In New Mexico, we have two subspecies: The Rocky Mountain Mule deer and the Desert Mule deer.



Photo Source: Lincoln National Forest Flickr

Size: Mule deer are larger than their Eastern relatives the White-tailed deer with mature males (bucks) weighing 121-300 pounds and females (does) weighing 95-200 pounds.

Appearance: Mule Deer get their name from their large ears compared to that of other deer species. They have a light grey coat with a white rump patch and a tail that is tipped with black fur and more rope-like than that of a white-tailed deer. Mule deer also have a dark strip of fur across their brow more noticeable in males.

Diet: Mule deer are primarily browsers which mean they eat a variety of plant matter like leaves, twigs, bark, and shrubs. But they will also graze upon grasses and forbs.

Role in ecosystem: Mule deer serve as an important prey species for Mountain Lions, wolves, and even Coyotes. They also provide food to scavengers as carrion.

Desert Adaptation: Mule Deer, along with their predators, are more active at dawn and dusk and will bed down in the heat of the day. Additionally, they will selectively browse on vegetation with higher moisture content when water is scarce. Their large ears are a physical adaptation to help disperse body heat. this trait is seen in many other desert species.

North American Cougar (Mountain Lion): These expert predators used to span across the continental US Northern Mexico and southern Canada. They were extirpated from the eastern portion of their range due to hunting and habitat loss. Now Cougars can be found in the Western US and Canada as well as Northern Mexico. However, in recent years cougar sightings have been more common in the eastern US.



Photo source: <https://www.nwf.org/Educational-Resources/Wildlife-Guide/Mammals/Mountain-Lion>

Size: Males weigh 80-150 pounds. Females are smaller, weighing 50-100 pounds.

Appearance: Grayish-tan coat with lighter fur on their underside, their long tail has a black tip. Cougars have similar body structure to a house cat, however they are much larger.

Diet: Cougars are ambush predators, typically hunting large animals like deer and elk, however they will also consume small mammals like rodents, and even insects.

Role in Ecosystem: The North American Cougar plays a predatory role in the ecosystem.

Desert Adaptation: Cougars will use the rocky cliffs of the deserts to den as well as to ambush prey. They will also hunt prey that may congregate near water. Cougars are active at night as well as during the early morning, and late evening, are less active during the heat of the day.

Yucca Moth: This unique species of moth is to thank for our beautiful State flower: the Yucca flower. Each species of Yucca plant has a corresponding moth that acts as the sole pollinator for that type of yucca.



Photo Source: <https://www.nwf.org/Educational-Resources/Wildlife-Guide/Invertebrates/Yucca-Moths>

Size: The Size of yucca Moth depends on the size of flower that they pollinate and rely on to reproduce.

Appearance: Yucca moths are usually small and white however they will match the color of the yucca flower that they pollinate.

Diet: The larva feed on the seeds of a pollinated yucca flower. Adult yucca moths are so short lived they do not need to eat.

Role in ecosystem: Yucca Moths are important pollinators as well as a food source for birds and other animals

Desert adaptation: Having evolved with the yucca plant these moths can only live wherever yuccas grow.

Chihuahuan Raven: a species of Raven unique to the deserts of the Southwestern US and Mexico.



Photo Source: <https://www.audubon.org/field-guide/bird/chihuahuan-raven>

Size: 18-20 inches tall. Smaller than the Common Raven, about the size of American Crow

Appearance: All black plumage, in some light may appear to have a purple/bluish shine.

Diet: Omnivorous, eats grains, seeds, insects, small reptiles, carrion, cactus fruit, eggs

Role in ecosystem: By eating Carrion they are important in nutrient cycling, as predators of small animals like insects and lizards they promote evolution of their prey.

Desert adaptation: The smaller Chihuahuan Raven is better suited for the desert than its larger relative the Common Raven. Small size is helpful for animals living in deserts to dissipate heat.